

WHAT IS CLAIMED IS:

1. A color display device, comprising:
a plurality of pixel regions each correlated to a predetermined
5 color component,
each of the plurality of pixel regions including:
a first thin film transistor for selectively supplying a signal
corresponding to a display information to the pixel region; and
a storage capacitor connected to the first thin film transistor
10 for retaining the signal corresponding to the display information;
wherein
the plurality of pixel regions are of equal length in a first
direction, while a pixel region correlated to a predetermined color
component is, in a second direction, of a length which differs
15 from a length of a pixel region correlated to at least one other
color component; and
a channel length direction of the first thin film transistor
is arranged along a third direction intersecting the first direction,
and a plan view distance obtained by projecting onto a display
20 plane surface an extent from an end portion of a gate of the first
thin film transistor to the storage capacitor is identical in the
respective pixel regions.
2. A color display device as defined in Claim 1, wherein
25 the lengths of the pixel regions in the second direction differ
from one another between the pixel regions correlated to different
color components.
3. A color display device as defined in Claim 1, wherein

in each pixel region, the storage capacitor is configured in a region where a storage capacitor electrode and a storage capacitor wiring overlap, and the overlap regions in the respective pixel regions are substantially identical to one another in at least 5 one of area, shape, or capacitance value.

4. A color display device as defined in Claim 1, wherein the first thin film transistors provided in the respective pixel regions are of identical shape and size.

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5. A color display device as defined in Claim 1, further comprising:

a plurality of data signal lines for supplying the display data corresponding to the display information to the respective 15 pixel regions; wherein

the data signal lines are connected to either one of a drain region or a source region of the first thin film transistors.

6. A color display device as defined in Claim 5, wherein 20 each of the plurality of pixel regions further includes a pixel electrode and a second thin film transistor connected to the pixel electrode; and

a gate of the second thin film transistor is connected to the storage capacitor and the first thin film transistor.

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7. A color display device as defined in Claim 6, wherein the second thin film transistors in the pixel regions correlated to different color components are of identical shape and size.

8. A color display device as defined in Claim 5, wherein
a plan view distance obtained by projecting onto the display
plane surface an extent from a gate end portion of the first thin
5 film transistor on the data signal line side to a contact location
connecting the data signal line and the first thin film transistor
is identical in the plurality of pixel regions correlated to
different color components.

10 9. A color display device as defined in Claim 5, wherein
each of the plurality of pixel regions further includes a pixel
electrode and a second thin film transistor connected to the pixel
electrode;

15 a gate of the second thin film transistor is connected to the
storage capacitor and the first thin film transistor; and
a load generated between the data signal line and the pixel
electrode is identical in the plurality of pixel regions correlated
to different color components.

20 10. A color display device, comprising:
a plurality of pixel regions each correlated to a predetermined
color component,
each of the plurality of pixel regions including:
a first thin film transistor for selectively supplying a signal
25 corresponding to a display information to the pixel region; and
a storage capacitor connected to the first thin film transistor
for retaining the signal corresponding to the display information;
wherein
the plurality of pixel regions are of equal length in a first

direction, while a pixel region correlated to a predetermined color component is, in a second direction, of a length which differs from a length of a pixel region correlated to at least one other color component; and

5 a channel length direction of the first thin film transistor is arranged along a third direction intersecting the first direction, and a load generated between a channel end portion of the first thin film transistor and the storage capacitor is approximately equal in the plurality of pixel regions.

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11. A color display device as defined in Claim 10, wherein the lengths of the pixel regions in the second direction differ from one another between the pixel regions correlated to different color components.

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12. A color display device as defined in Claim 10, wherein in each pixel region, the storage capacitor is configured in a region where a storage capacitor electrode and a storage capacitor wiring overlap, and the overlap regions in the respective pixel 20 regions are substantially identical to one another in at least one of area, shape, or capacitance value.

13. A color display device as defined in Claim 10, wherein the first thin film transistors provided in the respective 25 pixel regions are of identical shape and size.

14. A color display device as defined in Claim 10, further comprising:

a plurality of data signal lines for supplying the display

data corresponding to the display information to the respective pixel regions; wherein

the data signal lines are connected to either one of a drain region or a source region of the first thin film transistors.

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15. A color display device as defined in Claim 14, wherein each of the plurality of pixel regions further includes a pixel electrode and a second thin film transistor connected to the pixel electrode; and

10 a gate of the second thin film transistor is connected to the storage capacitor and the first thin film transistor.

16. A color display device as defined in Claim 15, wherein the second thin film transistors in the pixel regions 15 correlated to different color components are of identical shape and size.

17. A color display device as defined in Claim 14, wherein a plan view distance obtained by projecting onto a display 20 plane surface an extent from a gate end portion of the first thin film transistor on the data signal line side to a contact location connecting the data signal line and the first thin film transistor is identical in the plurality of pixel regions correlated to different color components.

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18. A color display device as defined in Claim 14, wherein each of the plurality of pixel regions further includes a pixel electrode and a second thin film transistor connected to the pixel electrode;

a gate of the second thin film transistor is connected to the storage capacitor and the first thin film transistor; and

a load generated between the data signal line and the pixel electrode is identical in the plurality of pixel regions correlated to different color components.

19. A color display device, comprising
a plurality of pixel regions each correlated to a predetermined
color component,
10 each of the plurality of pixel regions including:
a first thin film transistor for selectively supplying a signal
corresponding to a display information to the pixel region; and
a storage capacitor connected to the first thin film transistor
for retaining the signal corresponding to the display information;
15 wherein

the plurality of pixel regions are of equal length in a first direction, while a pixel region correlated to a predetermined color component is, in a second direction, of a length which differs from a length of a pixel region correlated to at least one other
20 color component; and

a channel length direction of the first thin film transistor is arranged along a direction which is at least non-parallel to the first direction, and a plan view distance obtained by projecting onto a display plane surface an extent from a gate end portion
25 of the first thin film transistor on the storage capacitor side to the storage capacitor is identical between the pixel regions having at least emissive areas different from one another.

20. A color display device as defined in Claim 19, wherein

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a plan view distance obtained by projecting onto a display plane surface an extent from a gate end portion of the first thin film transistor on a data signal line side to a contact location connecting the data signal line and the first thin film transistor 5 is identical between the pixel regions having at least emissive areas different from one another.

21. A color display device as defined in Claim 19, wherein each of the plurality of pixel regions further includes a pixel 10 electrode and a second thin film transistor connected to the pixel electrode;

a gate of the second thin film transistor is connected to the storage capacitor and the first thin film transistor; and 15 a load generated between the data signal line and the pixel electrode is identical in the plurality of pixel regions correlated to different color components.

22. A color display device as defined in Claim 19, wherein each of the plurality of pixel regions further includes an 20 emissive element for emitting light in accordance with the signal corresponding to the display information supplied via the first thin film transistor.

23. A color display device as defined in Claim 19, wherein 25 each of the plurality of pixel regions further includes:
a second thin film transistor electrically connected to the first thin film transistor and the storage capacitor; and
an emissive element connected to the second thin film transistor for emitting light in accordance with the signal

corresponding to the display information supplied via the first thin film transistor.

24. A color display device as defined in Claim 23, wherein
5 the emissive element is a current-driven electroluminescence element.